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ABSTRACT

THIS CONDENSED VERSION OF A COMPREHENSIVE TASK REPORT SPONSORED BY ESEA TITLE III, PRESENTS THE ESSENTIAL FINDINGS OF AN ASSESSMENT OF EDUCATIONAL NEEDS FOR PARAPROFESSIONALS AND SUPPORTIVE ASSISTANTS IN OHIO. DIMENSIONS OF THE STUDY INCLUDED A REVIEW OF LITERATURE ON THE USE AND TRAINING OF AUXILIARY PERSONNEL IN OTHER STATES, AND DISCUSSIONS OF LEGAL ASPECTS, RESEARCH FOCI, AND PROFESSIONAL ASSOCIATIONS. THE STUDY WAS DEVELOPED FROM A DOUBLE PERSPECTIVE OF MANPOWER UTILIZATION AND TRAINING. OTHER PHASES INCLUDED FINANCIAL RESOURCE IDENTIFICATION, ALTERNATIVE SOLUTIONS FOR UTILIZATION AND TRAINING, AND A SOLUTION THAT INTEGRATES BOTH TRAINING AND UTILIZATION UNDER A "NEW CAREERS" CONCEPT INCORPORATING A REDEFINITION OF THE TEACHING ROLE. (JK)

ED035967

# CONDENSED TASK REPORT

on

# THE USE AND TRAINING OF AUXILIARY PERSONNEL IN EDUCATION

to

## OHIO DEPARTMENT OF EDUCATION

November, 1968

by

Kenneth F. Connell

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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# FOREWORD

This report is the result of editing and reducing one of a series of Task Reports prepared by the staff of Battelle Memorial Institute, Columbus Laboratories, for the Ohio Department of Education under a contract research project entitled **PLANNING TO MEET EDUCATIONAL NEEDS IN OHIO SCHOOLS.** Funds for the project were made available under a Title III, ESEA grant from the U.S. Office of Education to the Ohio Department of Education.

This condensed version of a Battelle Task Report was prepared to present the essentials of Battelle's findings as briefly as possible without loss of content or continuity in order to facilitate dissemination of the research findings to a wider audience.

Battelle has assessed educational needs in vocational education and technical training, school facilities, paraprofessionals and supportive assistants, data processing, educational technology, library services, and pupil transportation, each of these being the subject of a research Task.

Eight reports were prepared by Battelle as a result of these studies: seven Task Reports and one Summary Report. The Task Reports represent research studies aimed at the seven subjects mentioned above. The recommendations and conclusions stated in the Task Reports do not reflect full consideration of the educational system as a whole. The Summary Report considers the Task Reports collectively and seeks to relate the results of the Task studies to the educational system as a whole.

The reader is thereby offered two views, one of a specialized nature through a Task Report and one of an integrative nature through the Summary Report. The two views will have much in common, but will occasionally reflect differences arising out of the different context in which the studies were viewed. Accordingly, the reader may wish to study both the Summary Report and the related Task Report on a given subject.

This report is a Condensed Task Report. It carries the essential impact of the Task Report from which it was taken.

Dissemination of the material contained herein is the responsibility of the Ohio Department of Education. Requests for copies with designation of the report(s) desired, may be directed to Dr. Russell A. Working, Division of Research, Planning and Development, 71 East State Street, Room 205, Columbus, Ohio 43215.

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# THE USE AND TRAINING OF AUXILIARY PERSONNEL IN EDUCATION*

## INTRODUCTION

**"The term 'Auxiliary Personnel' is used to denote employees who, though lacking the traditional requirements for the education profession, perform auxiliary functions as defined by Webster's New World Dictionary, i.e., they 'help, assist, and give aid and support to' the learning-teaching process. While this may not be the ideal term, it is more positive than 'nonprofessional' or 'paraprofessional' and more inclusive than 'teacher-aide'. The latter generally refers to the entry-level alone, not to assistants and associates; and to only one type of educational function – teaching – not to other functions such as counseling, library services, home-school relations in which assistance is needed".****

We have adopted the above definition of "auxiliary personnel" in order to avoid introducing yet another definition for these types of personnel and to reflect our basic agreement with the kinds of roles implicit in the definition (i.e., supportive roles).

### Objective of Task

The overall objective of this task was to identify needs, resources, and alternative solutions to needs for the use and training of auxiliary personnel in Ohio public schools.

### Assumptions

For purposes of this study, several assumptions were made:

- Auxiliary personnel are here to stay, so we need to find out how to use and train them effectively and efficiently.
- The desired use of auxiliary personnel should be the determining factor in specifying the kinds of training they should receive in preparation for service in Ohio's elementary and secondary schools.
- All educational personnel should be qualified to perform the tasks they are called upon to perform.

* The assistance of R. Abram, J. Powers, and Monica Peck during the information collection and analysis phases of this research is gratefully acknowledged by the author.

** The University of the State of New York/The State Department of Education, Guidelines for Career Development of Auxiliary Personnel in Education (June 1968) 46 pp.

- The mere presence of auxiliaries will not add materially to the education of children. They require preparation for their positions.

- The State educational system should be viewed as a manpower system in order to study system needs and resources in relation to the use and training of auxiliary personnel.

## Research Questions and Problems

Within the framework provided by the general study purpose and available project resources, our research efforts were directed toward producing useful answers to several questions. First, there was the broad utilization problem: How should auxiliary personnel be used in Ohio's elementary and secondary schools? Now? And, in the future? In contrast: How are they currently being used? Are different types and levels of auxiliary personnel needed to achieve the educational goals of Ohio's public schools? Finally, and probably of greatest importance, what alternatives exist for increasing the effectiveness and efficiency with which auxiliary personnel are used in Ohio's public schools?

Then, there also was the equally broad training problem: Are auxiliaries receiving the training they need to perform present assignments with acceptable proficiency? And, are present-day training programs and practices adequate for likely future job assignments? Basically, the training problem involved the numerous issues implicit in determining the present and future training needs of auxiliary personnel. It also involved consideration of the available alternatives for improving auxiliary training in the State educational system.

Finally, there was the problem of interacting levels of training and utilization: How should such interactions be interpreted? The problem can be illustrated in relation to the hypothetical data presented in Table 1. The hypothetical data assume that three levels of auxiliary job functions have been established: high, medium, and low. It further assumes that higher level functions involve more complex, and presumably, more professional operations. These three job functions are referred to as levels of auxiliary utilization in Table 1. Similarly, Table 1 assumes that three corresponding levels of training have been developed for preparing auxiliaries for their educational assignments. The three levels of auxiliary training also are designated as high, medium, and low for present purposes. Now, if we examine the various training and utilization combinations in Table 1, it is possible to define discrepancies between training and utilization levels in several ways:

- As utilization needs (i.e., over- and under-utilization)

- As training needs (i.e., under- and over-training)

- As combination needs (i.e., over-utilization combined with under-training or under-utilization combined with over-training)

Each of the above definitions of training and utilization needs implies a different diagnosis and prescription. If auxiliaries are being used at high levels, for example, and receiving only low-level training, the need might be defined in terms of over-utilization, under-training, or a combination of over-utilization and under-training.

TABLE 1. HYPOTHETICAL DATA SHOWING POSSIBLE INTERACTIONS BETWEEN LEVELS OF AUXILIARY UTILIZATION AND TRAINING IN RELATION TO ALTERNATIVE DIAGNOSES OR NEED AND PRESCRIPTIONS OF CORRECTIVE ACTIONS

| (Job Functions) Levels of Auxiliary Utilization | Levels of Auxiliary Training | Alternative Diagnoses of Need | Alternative Prescriptions of Corrective Actions |
|---|---|---|---|
| High | High | No problem | -- |
| | Medium | Over-utilization | Train professional |
| | | Under-training | Train auxiliary |
| | | Combination | Train both |
| | Low | Over-utilization | Train professional |
| | | Under-training | Train auxiliary |
| | | Combination | Train both |
| Medium | High | Under-utilization | Train professional |
| | | Over-training | -- |
| | | Combination | Train both |
| | Medium | No problem | -- |
| | Low | Over-utilization | Train professional |
| | | Under-training | Train auxiliary |
| | | Combination | Train both |
| Low | High | Under-utilization | Train professional |
| | | Over-training | -- |
| | | Combination | Train both |
| | Medium | Under-utilization | Train professional |
| | | Over-training | -- |
| | | Combination | Train both |
| | Low | No problem | -- |

Interpretation of the need as over-utilization implies that professional personnel need to learn how to assign duties that do not exceed the auxiliary's level of preparation. Diagnosis of the need as a case of under-training would lead to recommendations for training auxiliaries to perform at higher levels of proficiency. And, finally, diagnosis of the need as a combination of over-utilization and under-training might lead to the prescription of role development training for both the professionals and auxiliaries so they could learn to function together at more appropriate levels. Clearly, the correct diagnosis depends on what one thinks auxiliaries should be doing in the public schools. For this reason, it appears that decisions about desired levels of utilization are properly a school district function whereas decisions about appropriate levels of training and preparation are deserving of attention by the Ohio Department of Education (ODE).

Under various assumptions about present and future levels of training and utilization, Table 1 can be used to explore the implications of alternative training and utilization needs in relation to professional and auxiliary staff.

## Study Procedures

Three basic study procedures were used: (1) a literature search, (2) interviews, and (3) a questionnaire survey.

A literature search of the Educational Research Information Center (ERIC) was initiated at the outset of the project. Much useful information also was located as a by-product of interviews with ODE resource persons, Ohio Education Association research personnel, and personnel at the Michigan-Ohio Regional Educational Laboratory (MOREL).

Numerous interviews were conducted with ODE personnel in order to collect background information, to explore issues related to the use and training of auxiliary personnel, and to identify State-administered financial resources. Meetings also were arranged with local school district personnel, other Battelle task leaders, Harold Armstrong (School Management Institute), and Dr Lewis Harris (Ohio School Boards Association), both of whom served as Battelle consultants.

A "Survey of Uses and Training of Supportive Assistants in Ohio School Districts" was subsequently developed and administered to a representative sample of school districts to obtain needed information. Full documentation of the survey questionnaire and the sampling procedures is available in the "Sixth Letter Report from Battelle-Columbus to the Ohio Department of Education on Subcontract Dated April 23, 1968".

## DIMENSIONS OF STUDY PROBLEMS

On the basis of the literature survey, we identified four major dimensions which seemed to cut across the training and utilization problems of interest. One dimension concerned the approaches of other states to the issues raised by the use of auxiliary personnel in the public elementary and secondary schools. A second dimension was related to the legal status of auxiliary personnel. The third dimension was concerned with research that has been undertaken to clarify issues and resolve problems attendant

to the use and training of auxiliaries. The fourth dimension has to do with the positions of selected professional associations vis-a-vis the increasing utilization of auxiliaries in education.

## Approaches of Other States

The literature search uncovered useful information on the use and training of auxiliary personnel in the following states:

- The New England States (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont)
- Minnesota
- New Jersey
- California
- Massachusetts
- Florida
- New York
- Selected Other States

Whenever information was found on certification and licensing practices in the various states, this also was included in our presentation.

### The New England States

Our discussion of the use and training of auxiliary personnel in New England is based on recent findings from the New England Educational Assessment Project. The objectives of the project were "to review studies already conducted, assess the qualifications and duties of teacher aides in New England, and review the recommendations of teachers who have had experience working with teacher aides".*

Use. A total of 1724 teacher aides responded to a survey form which (among other things) asked them to indicate how often they performed each of 27 duties. The ten most frequently performed duties are reported below (the percentage of teacher aides that perform the duties 75 percent or more of the time they – the duties – appear in the classroom schedule is given in parentheses).

- Providing clerical assistance, including duplicating materials (64)
- Helping supervise the playground (47)

*Teacher Aides in the Classroom, A Digest. The New England Educational Assessment Project (November 1967) 12 pp.

- Assisting with housekeeping chores and bulletin board arrangements (44)
- Helping with supervision of lunch period (43)
- Helping the individual child with his lessons (43)
- Filing and cataloging materials (42)
- Collecting money (40)
- Checking objective tests under supervision of teacher (39)
- Correcting workbooks (39)
- Preparing visual materials for instruction as determined by the teacher (36)

The 2139 teachers who completed a similar survey form "on the basis of what their experience indicated would be appropriate assignments" recommended the same ten duties with only one exception. They substituted "Making out lunch reports" for "Helping the individual child with his lessons".

Training. Although the New England Educational Assessment Project did not collect information about ongoing pre-service and in-service aide training programs, it was concluded: "Teacher aides have an adequate general education for the tasks they are performing; 95% having graduated from high school". It was further suggested that "They appear to need training in business education, preparation of educational materials, the operation of audio-visual equipment, an understanding of child growth and development, and a knowledge of the policies and regulations pertaining to school lunch service, playground supervision, and other activities if they are to perform the duties recommended by teachers who have worked with them".

Certification. As reported by the New England Project, "The New England state departments of education recognize the position of teacher aide but have not developed requirements for certification. Regulations are designed to delineate the duties appropriately assigned to teacher aides. They vary from a brief two line 'Definition of Teacher Aide', in one state, to guidelines of several pages in another". Information from California, Florida and other selected states reflected similar findings pertaining to auxiliary personnel.

## The Legal Dimension

This section of the report is concerned with the legal dimension of using auxiliary personnel in the public schools. The writers gratefully acknowledge their indebtedness to S. Kern Alexander of the U. S. Office of Education for his timely and useful article "What teacher aides can – and cannot – do".* The substance of our presentation on the legal dimension of the problem has been adapted from his article.

*Alexander, S. Kern, "What teacher aides can – and cannot – do", Nation's Schools, Volume 82, Number 2 (August 1968) pp. 23-25, 46.

## Employment of Auxiliary Personnel

Numerous local school districts throughout Ohio have been expending public funds to employ auxiliary personnel in recent years. Sometimes local funds are involved, sometimes State funds, and very often Federal funds are used. Do local districts actually have the authority to expend public funds for auxiliary personnel in the absence of statutory authority? According to Alexander:

> ". . . the weight of judicial authority . . . seems to support the general premise that in the absence of statutes to the contrary, the power to hire and pay teacher aides is within the authority of local school districts".

We are aware of no Ohio statutes which would restrict the general authority of school districts to employ auxiliary personnel.

## Restrictions on the Functions to be Performed by Auxiliary Personnel

Most employer school districts in Ohio have faced the problem of formulating policy and procedures for regulating the range and types of functions to be assigned to their auxiliary personnel. At the present time the legal status of auxiliaries appears to have rather direct implications for at least two broad types of functions: (1) instructional or teaching functions, and (2) functions requiring regulation of pupil conduct.

## Liability for Pupil Injury

If a student is injured while under the supervision of an auxiliary, would the auxiliary be liable for the injury? Similarly, what liability might be incurred by certified administrative or supervisory personnel who would delegate such assignments to auxiliaries?

### Auxiliary Personnel.

> "When teacher aides are assigned tasks involving supervision, they are placed in positions of potential liability for pupil injury. In such a situation, liability is likely to arise out of negligence on the part of the aide. Any person assigned such responsibilities is ignorant at his own peril. If he is not qualified to supervise playgrounds, then he should not try to do it".

### Certified Administrative or Supervisory Personnel.

> ". . . a teacher or a principal is not liable for the negligent acts of a properly appointed and qualified teacher aide. On the other hand, if a teacher or principal assigns duties for which the teacher aide is not qualified and the purposes of which do not fall within the scope of the aide's employment, the teacher or the principal may be liable for negligent acts by the aide".

Our literature search also produced one case in which an insurance company agreed to defend a New York State school district and its lunch-hour aides in the event an accident did occur while a child was under the supervision of an aide.

## The Research Dimension

Research related to the use and training of auxiliary personnel has been of essentially three types: (1) surveys, (2) special projects, and (3) comprehensive role-assessment studies. In this section, we offer a brief evaluation of these types of research as they relate to major issues and problems of auxiliary training and utilization.

One important issue involves the question of role definition: Who should do it? And, under what conditions? Second, What are the performance standards associated with specific work tasks? Third, What are the knowledge and skill requirements associated with successful performance of various work tasks? Fourth, How critical are various tasks to the achievement of educational goals and objectives?

### Surveys

There have been several statewide and national surveys of teacher-aide utilization with a sprinkling of surveys concerned with auxiliary use and training. In general, the surveys have served to document the rapid and widespread acceptance of teacher-aides and other auxiliary personnel. Aside from reporting the current state of the art, the surveys, taken collectively, offer baseline data for estimating that considerable future utilization of auxiliaries will occur. For the most part, however, survey data have not been responsive to the fundamental problems and issues of auxiliary utilization and training.

### Special Projects

An extremely wide variety of special projects has been conducted to demonstrate particular uses of teacher-aides and auxiliaries. Several others have demonstrated specialized approaches to training auxiliary personnel. Although a comprehensive evaluation of these projects was beyond the scope of the present task, those projects demonstrating promising approaches to the use and training of auxiliaries have been noted in our later presentations of alternative training and utilization solutions.

### Comprehensive Role Assessment Studies

Two comprehensive role assessment studies were found in the literature. The first of these was a study of "New Careers and Roles in the American School".*

Following evaluation of 15 Office of Economic Opportunity demonstration programs, the Bank Street College of Education concluded this study of auxiliary personnel as follows:

*Bowman, Garda W., and Klopf, Gordon J., New Careers and Roles in the American School, Report of Phase One, A Study of Auxiliary Personnel in Education, Bank Street College of Education for the Office of Economic Opportunity, New York (September 1967) 201 pp.

"Within this broad framework, myriad functions need to be performed in order to encourage autonomous learning by individual pupils. The functions vary with each learning situation as do the capacities of the people involved. The question of who performs each of these functions is not so crucial as the question of who is responsible for diagnosing pupil needs and for organizing all the available resources, both human and material, into a viable curriculum which is relevant to the lives of the learners. The situation as well as the skills and training of all the individuals involved then become major role determinants within the interactive process."

"The inclusiveness and the goal-centered qualities of this broadened team approach do not eliminate, however, the requirements for responsibility and accountability. The classroom teacher is still the pivotal factor in organizing all the various available resources into a continuing program of differentiated education to meet the needs of children, which he - the classroom teacher - has identified through personal interaction with each child. In the performance of this difficult and profoundly significant task, the teacher is accountable not only to the administration, but also to the pupils and their parents, and finally to himself, as he evaluates the effectiveness of his utilization of various available and relevant inputs in the learning environment he has created" [emphasis added].

The other major study of auxiliary roles in education "is a Title III ESEA project to assess the actual and potential contributions of paraprofessionals in Wayne County (Michigan) public and nonpublic schools. The Study concerns all aspects of paraprofessionalism in schools with emphasis on role definition, recruitment, selection, and training". *

During the course of this ongoing study, twenty-six different types of auxiliary personnel have been identified. In addition, two broad categories of tasks have been defined: those which are primarily "institutional" in nature, and those which are best characterized as tasks involving "reinforcement of instruction". The former tasks arise from school administration requirements whereas the latter involve direct instruction of children. An extensive listing of both types of these auxiliary tasks has been prepared and reported in this study. This document also provides the following distinctions between professional and paraprofessional personnel:

"The line that separates the professional from the paraprofessional can best be drawn by considering the following precepts:

1. Diagnosing of student needs is a professional task.

2. Prescribing instructional programs is a professional task.

3. Selecting appropriate materials is a professional task.

*Wayne County Intermediate School District, The Paraprofessional Study: An Overview, Detroit, Michigan (August 1967) 100 pp.

4. Counseling with students and evaluating student progress and achievement are professional tasks.

5. Initiating, determining the why, the how, the where, and the when are professional tasks.

The professional is the decision-maker for the implementation of the educational program. The paraprofessional does only those things that he is directed to do, working under the supervision of the certificated person. These tasks can be described as those that are:

1. Clerical

2. Monitorial

3. Reinforcement of instruction."

Although neither of these comprehensive studies of auxiliary roles has been addressed specifically to the questions raised earlier in this section, they have both been concerned with many of the fundamental issues of role delineation.

## Professional Associations

Published statements of the National Education Association (NEA) and the American Library Association (ALA) concerning the use and training of auxiliary personnel are reviewed briefly in this section. Our purpose is to indicate their official positions toward increased utilization of auxiliary personnel in education.

### National Education Association

The National Commission on Teacher Education and Professional Standards (NCTEPS) recently stated:*

> "Auxiliary school personnel are here; they are not an idle dream; they should not be a source of hidden fears. They are here because they are needed – needed by the professionals and by the children".

The further view of NCTEPS about the proper kinds and amount of training to be provided auxiliary personnel was:

> "No definite decisions can be made now about desirable educational levels of prospective aides. Their training should depend both on the jobs for which they are being prepared and on the educational levels they have attained".

Regarding the licensing of auxiliary personnel, the following position was taken:

*"Auxiliary Personnel in the Elementary School", The National Elementary Principal, Volume XLVI, Number 6 (May 1967) 100 pp.

"Auxiliary personnel should meet proficiency standards determined by the nature of the jobs they will perform. In most instances, such standards should be formulated and applied at the local level. At the present time, it would be inadvisable for states to issue licenses for auxiliary personnel. Not enough is known about teacher aides and the qualifications they need to decide the basis on which they might be licensed. It would be wise for states to encourage experimentation with different practices and criteria for auxiliary personnel and to let decisions about licensure wait until more evidence is available".

American Library Association

In the April issue of the ALA Bulletin (1968), two new levels of "subprofessional" or "paraprofessional" staff were proposed. These were called "library clerks" and "library technical assistants". Subsequently, in June, 1968, a working set of guidelines for training programs for the library technical assistants was developed by the Library Education Division of ALA.

A major premise of the committee that first proposed the new classifications was that:

"Reorganization and restructuring of some librarian positions appears to be an essential step toward meeting the critical existing shortage of professional librarians and future requirements. A realignment of duties often can separate individual steps so that some components of a professional task with narrower responsibilities can be assigned to nonprofessional personnel". *

According to the definitions offered, library clerks would work under the direct supervision of a librarian or a library technical assistant. In contrast, the duties of library technical assistants are to be based on the skills required by the library clerk, plus proficiency in one or more functional areas or in certain limited phases of library service. The proposed training for library technical assistants would be in formal post-secondary school programs. Significantly, and perhaps unfortunately, the working set of guidelines provides for a terminal program and not a transfer program. Thus, credits obtained while preparing for a library technical assistant position could not be used directly to meet requirements for a professional degree in Library Science.

## DESCRIPTION OF THE SYSTEM UNDER STUDY

Before proceeding to the identification of needs and resources in the State educational system, it was necessary to define the "system" in relation to the training and utilization problems of interest. Accordingly, for analytical purposes, we formulated three different ways of looking at the present Ohio educational system. All three views of the present system are offered in this section of the report.

*"The Subprofessional or Technical Assistant, A Statement of Definition", ALA Bulletin (April 1968) pp. 387-397.

## A Manpower Utilization Perspective*

Figure 1 has been prepared to characterize the present State educational system from a manpower utilization perspective. Shown are the principal certified, professional positions which exist in Ohio's local school systems at this time. (The position of "Local Superintendent" is omitted because, for our purposes, it is interchangeable with the position of "Superintendent".) Local schools and school districts were selected as the "units of observation" for this manpower utilization perspective largely because they are known to exercise considerable autonomy in their deployment of staff. The State Educational system is a statistical entity and not a functional system in this context.

The positions shown in Figure 1 have been grouped into four service or functional areas of school system operation: (1) administrative services at the district level, (2) administrative and teaching functions at the elementary and secondary school level, (3) pupil personnel services which may be organized at either the district or school level, and (4) library services which may also be organized on a district-wide or school basis. Within this framework, manpower utilization should be directed to meeting student needs in an effective and efficient manner. If the introduction of auxiliaries into the school system (districts) and subsystems (schools) is to be beneficial, the following types of system outputs might reasonably be expected:

- Increased fulfillment of student needs (however defined)
- Improved cost/effectiveness in meeting student needs
- Increased achievement of school and school district goals and objectives
- Increased efficiency in achieving goals and objectives
- Combinations of above.

## A Manpower Training Perspective

Figure 2 provides a manpower training perspective for viewing the preparation of public school personnel in the State educational system. In Figure 2, Ohio's elementary and secondary schools are conceived as the primary market for trained manpower. Also, as shown in Figure 2, only the colleges and universities are presently engaging significantly in the preparation of public school personnel.

With the exception of a "Teachers' Aide Course" at the Erie-Huron-Ottawa Vocational Education School District and an Associate Degree level Library Technician program at the Cuyahoga Community College, Ohio's pre-baccalaureate institutions are not presently known to be preparing personnel for service in public elementary and secondary schools. The general absence of pre-baccalaureate training is reflected in Figure 2 by the absence of "feeder" paths to the block entitled "Trained Manpower for Elementary and Secondary Schools".

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*We wish to acknowledge Jean Szaloczi's paper on "A Systems Approach to Manpower Utilization" for its stimulating effect on our thinking about the present problems of manpower utilization.

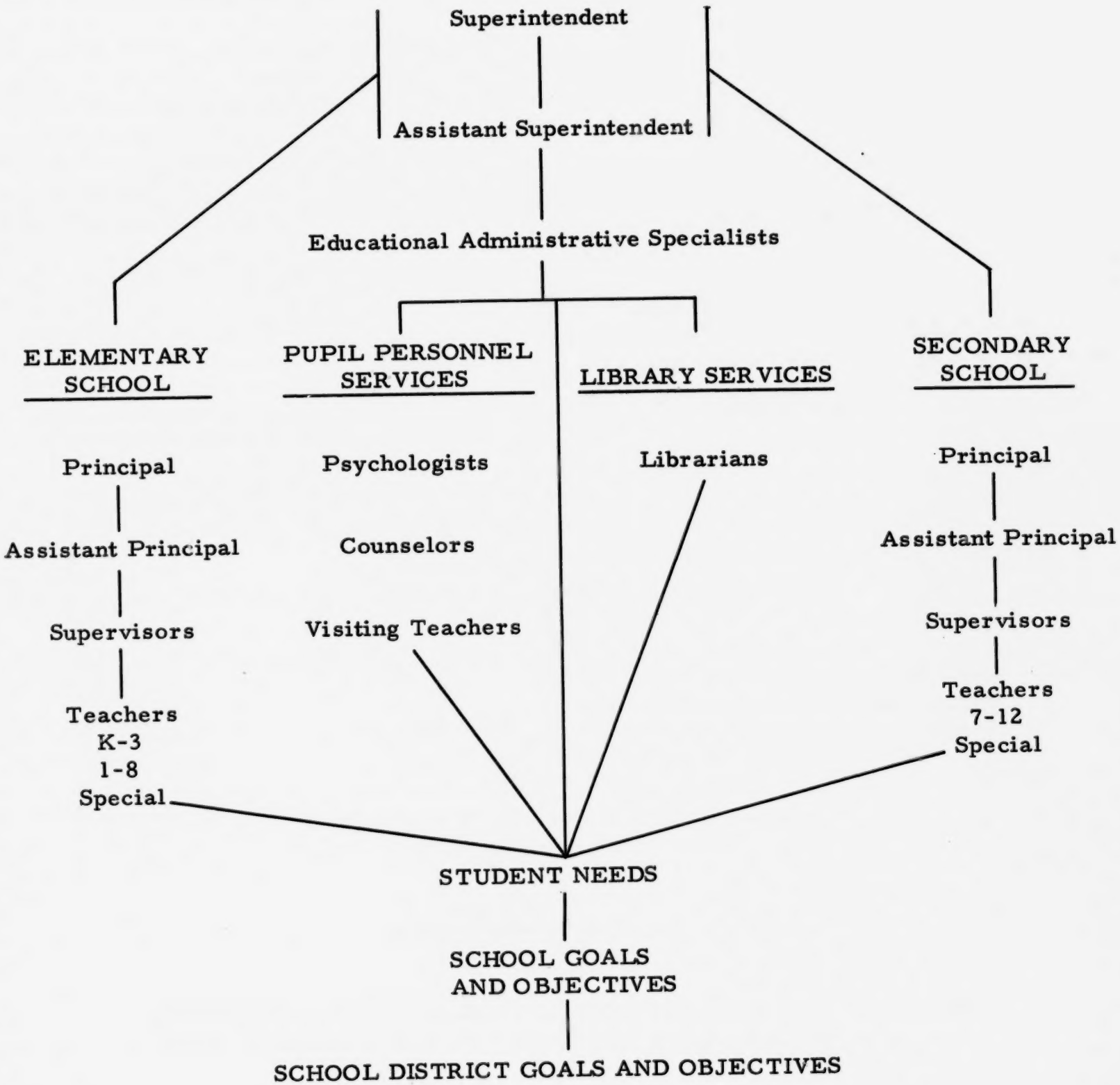


FIGURE 1. A MANPOWER UTILIZATION MODEL FOR SCHOOL DISTRICTS AND INDIVIDUAL SCHOOLS

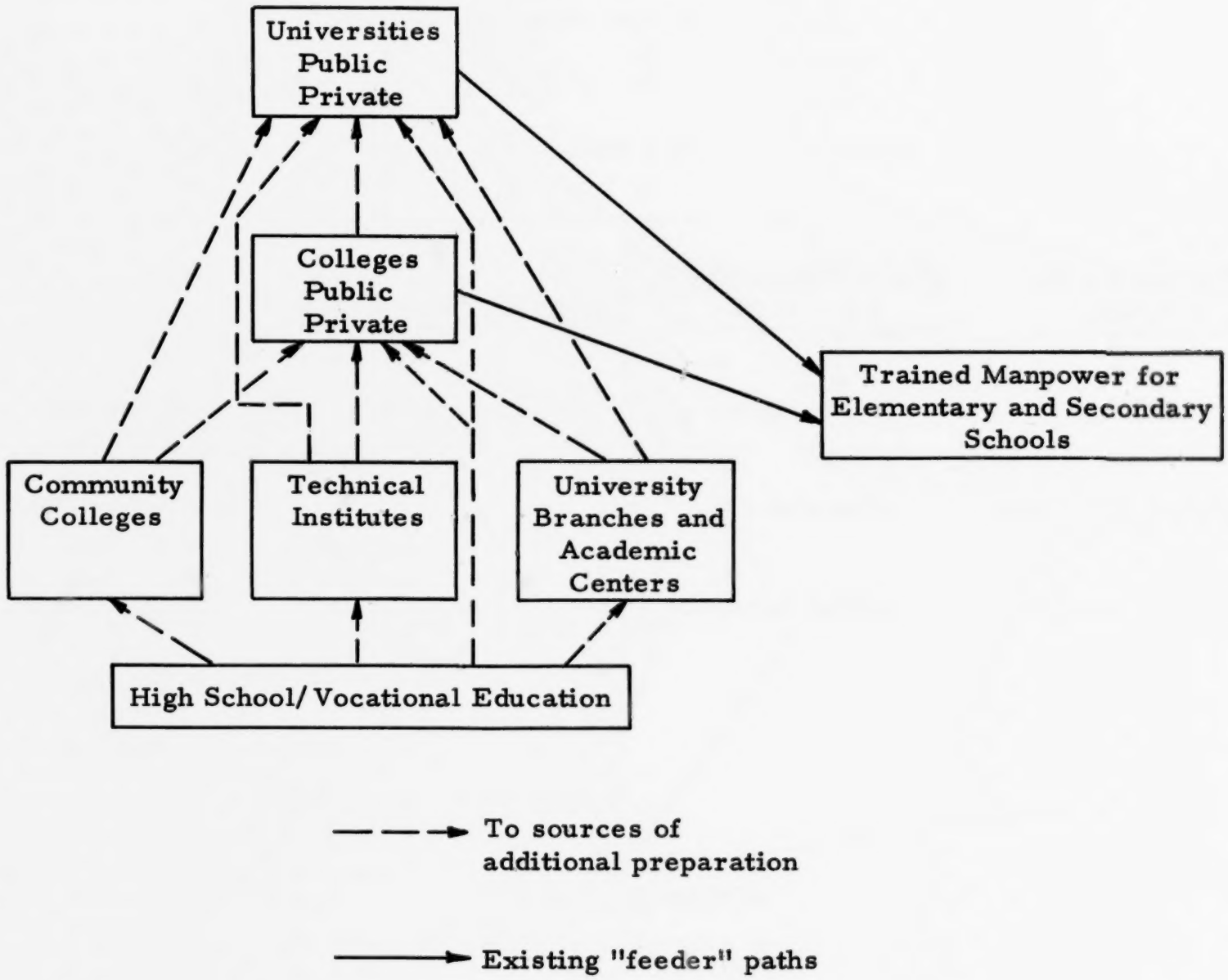


FIGURE 2. THE PREPARATION OF PUBLIC SCHOOL PERSONNEL IN THE STATE EDUCATIONAL SYSTEM (OHIO: 1968)

## A Social Systems View

If we superimpose a social systems view on Figure 1, and if we speculate about the introduction of auxiliary personnel into schools in the same context, we come away with a totally different view about the use and training of auxiliaries. More specifically, if we view the elements in Figure 1 as "people" rather than "positions", we are better able to sense the interactions that must surely occur over time as people perform their work assignments (whatever they may be). Thus, by abandoning a structural view of relationships among people, we are better able to grasp the dynamic process by which work assignments are performed. Furthermore, by focusing on the introduction of new people and new positions (auxiliaires), we are less likely to make the mistake of assuming that the introduction of auxiliaries will be confined in impact to the particular professional(s) to whom they are directly responsible. The introduction of auxiliaries on a large scale can be expected to work major, and fundamental, changes upon the fabric of how public education is administered and conducted in terms of how work is actually performed. The introduction of auxiliaries has already triggered a degree of self-awareness and role examination that was unheard of in education even a decade ago.

## PRELIMINARY ASSESSMENT OF NEEDS

In this section we present survey findings relating to the use and pre-employment education and training of different types of auxiliaries.* The survey results have been summarized to provide information for our sample of Ohio school districts on:

- Present patterns of use
- Present and estimated future needs (i.e., for the 1971-1972 school year) for paid, full-time auxiliaries
- Utilization trends
- Present pre-employment education and training requirements
- Recommended pre-employment education and training for auxiliaries employed in positions similar to those now existing in the districts
- Desired pre-employment education and training backgrounds of applicants for auxiliary positions 3 years from now (i.e., the 1971-1972 school year).

*Of the 111 school districts that were sent questionnaires, 85 (76.6 percent) returned them in time for our data analysis. The present results are based on all of the returned questionnaires.

## Regular Classroom Assistants

In our questionnaire to Ohio school districts, we listed five types of auxiliary personnel and several grade levels under the broad classification "Regular Classroom Assistants".

1. Teachers' Assistants
2. Remedial Reading Assistants
3. Lay Reader Assistants
4. Language Assistants (for Bilingual Students)
5. Classroom Clerical Assistants.

### Use

Findings indicate present usage of paid, full-time regular classroom assistants is limited almost entirely to "Teachers' Assistants" and "Remedial Reading Assistants". These auxiliary personnel are most heavily concentrated in the primary-elementary grades.

In comparison to present levels and patterns of use, substantial need was found for all types of regular classroom assistants with the exception of "Language Assistants" (for bilingual students).* The trend is clearly toward increased use of regular classroom assistants, with most categories of use showing pronounced increases between now and the 1971-1972 school year.

### Training

In general, the school districts favored increased pre-employment education and training (E & T) for regular classroom assistants. "Language Assistants" were the only exception to this general finding.

## Special Classroom Assistants (For Exceptional Children)

### Use

Results showed that paid, full-time special classroom assistants are almost nonexistent in the State educational system at the present time. However, compared to other types of auxiliaries, a moderate number of such personnel are needed now and will be needed in 3 years. Moreover, almost twice as many of these auxiliaries will be needed in 3 years as are presently needed. The trend is rather clearly in the direction of increased need for utilization of two types of special classroom assistants: "Teachers' Assistants" and "Classroom Clerical Assistants".

*Unfortunately, our data do not permit us to judge the extent to which a reported "need" represents an actual "demand" for auxiliaries, i.e., one that is backed up by the ability to pay for their services.

### Training

The study results indicate that, for the 1971-1972 school year, none of the responding districts desire applicants for special classroom assistant positions if they have less than a high school diploma (or equivalent) and are without prior auxiliary training. In the case of "Classroom Clerical Assistants" this result may be interpreted as a desire for such personnel to have some prior training in secretarial-clerical functions.

## Laboratory Assistants

### Use

No paid, full-time laboratory assistants are presently in use in the responding school districts. Nevertheless, a modest present and future need for such personnel was noted. Moreover, the estimated future need for these personnel during the 1971-1972 school year changes little when compared with the number of laboratory assistants needed now.

### Training

The data on "E & T Desired in Three Years" reflects a lack of desire for applicants with a high school diploma, equivalent, or less without prior training for an auxiliary position as a "Shop Assistant", a "Science Laboratory Assistant", or a "Language Laboratory Assistant".

## Pupil Personnel Assistants

### Use

The survey revealed that apart from nine "Elementary Counselors' Assistants", the responding school districts are not presently employing any "Pupil Personnel Assistants" on a paid, full-time basis. The number of additional paid, full-time auxiliaries that are needed in this category is quite small – except for the "Counselors' Assistants" where a modest number is required now and in 3 years as well. No significant increase in need is evident when the number needed now is compared with the number needed in 3 years.

### Training

The study data indicate an absence of desire for applicants who are without prior training for an auxiliary position and who have no more than a high school education.

## Instructional Materials Assistants

### Use

It was found that "Library Assistants" are the second most frequently employed group of paid, full-time auxiliaries (after "Regular Classroom Teachers' Assistants"). Survey results indicate a substantial present and future need for "Library Assistants" according to our responding school districts.

Regarding "Audio-Visual Assistants", there is scant present usage of paid, full-time persons. Also, only a modest need for such personnel is reported now and estimated for the 1971-1972 school year by our sample of school districts.

The gap between present and estimated future needs for both types of instructional materials assistants is suggestive of a trend to increase utilization of these persons.

### Training

Increased pre-employment education and training were desired for "Library Assistants". In contrast, no increase in training was indicated for "Audio-Visual Assistants".

## Administrative School Assistants

### Use

Only a negligible number of "Administrative School Assistants" are presently employed on a paid, full-time basis in our sample of school districts. In contrast, the need now and in 3 years is moderately large in the case of "Office Clerical Assistants". Only a slight increase in need can be detected for paid, full-time "School-Community Assistants".

### Training

Three years from now, only a small percentage of the responding school districts would be interested in applicants that have only a high school diploma, the equivalent, or less without prior training for an auxiliary position. Prior training for "Office Clerical Assistants" would presumably involve training in office skills.

## Other Assistants

### Use

Of the three types of auxiliaries grouped under "Other Assistants", only the "Supervisory-Monitoring Assistants" group has a moderate number of paid, full-time persons employed by our sample of school districts. In terms of present and estimated future needs for these other assistants, moderate numbers of "Supervisory-Monitoring Assistants" and "Physical Education-Recreation Assistants" are required whereas only a small number of "School Nurses' Assistants" appear warranted on a paid, full-time basis.

### Training

Additional pre-employment E & T was generally favored for all of the other assistants considered in the survey.

## FINANCIAL RESOURCE IDENTIFICATION

This section of the report provides selected information about financial resources that are available to support the use and/or training of auxiliary school personnel. Resources are categorized as State or Federal programs (by origin), and when Federal programs are involved, they are further classified as State-administered or non-State administered programs.

## State Financial Resources

### Senate Bill 350

Ohio's "Rules and Regulations for the Allocation of Funds for the Improvement of the Educational Status of Disadvantaged Pupils" identify two programs that are directly relevant to this study. One provides for the "use of paraprofessionals" and the other for programs involving the "Executive Teacher" plan.

Information obtained from ODE shows that, during the period January-June of 1968, thirty-two local districts were employing 412 paraprofessionals under Senate Bill 350 allocations. During the same period, however, no funds had been requested to support school district programs designed to implement the "Executive Teacher" plan.

All programs for disadvantaged pupils under Senate Bill 350 must be carried out "only in school buildings which qualify for participation in Title I of the Elementary and Secondary Education Act".

## Federal Financial Resources: State-Administered Programs

### Elementary and Secondary Education Act

Our research indicates that Titles I, III, and VI of the Elementary and Secondary Education Act (ESEA) offer relatively large opportunities for the use and training of auxiliary personnel. According to one government estimate, "As much as $100 million may be invested in the employment of school aides during the next several years through ESEA provisions".

ESEA Titles I, III, and VI are each described below, and when possible, the description is in terms of present impact on the use and training of auxiliary personnel.

Title I. According to the second annual report, Title I/Year II, "During 1966-67, there were 83,500 teacher aides and 6,100 library aides working in Title I programs".*

> "Aides were most successful in projects where they and the classroom teachers received inservice training in the nature and purposes of compensatory education; where their duties were clearly defined; where bilingual aides were used in schools with large numbers of non-English-speaking pupils; and when the aides came from the same poverty area as the children".

Significant benefits resulting from the employment of parents of low-income children were described as follows in Title I/Year II:

> "School districts that employ parents from the poverty areas as teacher aides are providing a host of benefits beyond aiding teachers and children. By bringing in parents who have little education or are hostile to the school these districts are helping to:
>
> - Draw closer school-community ties
> - Raise the parents' desire to learn
> - Give parents a new feeling of self-esteem
> - Show parents how to help their children take a new interest in school
> - Take mothers off the welfare rolls and place them on the tax rolls as employees of the school system" (p. 45).

Title III. According to the authors of Federal Aid for Schools, PACE (Title III Projects to Advance Creativity in Education) offers:

> ". . . an opportunity for local educational leaders to introduce flexibility, innovation, and experimentation into American education. It is designed to:
>
> - Encourage the development of innovation in educational practices
> - Demonstrate worthwhile innovations through exemplary programs
> - Supplement existing programs and facilities
> - Transfer beneficial research results from the educational laboratory to the classroom".

Because PACE is administered on a competitive basis within States and because many of the funded PACE projects are multipurpose programs, it is exceedingly difficult

*Our survey data on present utilization is generally consistent with this nationwide pattern.

to identify expenditures of funds that have been provided solely for the use and/or training of auxiliary personnel. Nevertheless, the following data from the U. S. Office of Education offer some indication of the national involvement of Title III in the use and/or training of auxiliaries. "As of September 1967 there were 63 PACE projects costing $9,728,667 in which paraprofessionals played a major role. Of this total number, 22 projects costing $1,777,166 were funded for planning and 41 projects costing $7,951,501 were funded for operational purposes".

Title VI. According to estimates provided by the U. S. Office of Education, seventy-one (71) teacher's aides were employed in Ohio during Fiscal Year 1968, under ESEA Title VI-A. A total of 983 aides were employed nationwide during this same period. Title VI provides educational services to handicapped children.

## Education Professions Development Act

The Education Professions Development Act (EPDA) of 1967 amended Title V of the Higher Education Act of 1965. Parts B-2 and D of the EPDA legislation are very significant for their potential impact on the training and utilization of auxiliary personnel. Although only Part B-2 is directly State-administered, Part D is also considered in this section because the two parts are complementary. We have chosen to describe Part D first.

Part D (EPDA). Part D authorizes grants for improving "the qualifications of persons who are serving or preparing to serve in educational programs in elementary and secondary schools (including preschool and adult and vocational programs) or post-secondary vocational schools or to supervise or train persons so serving". These grants are known as Educational Personnel Development Grants. According to "Guidelines for the Preparation of Proposals for Educational Personnel Development Grants", the purpose of these grants is central to the Act – "to improve the quality of teaching and to help meet critical shortages of adequately trained educational personnel".

> "Projects under these grants may include preservice and inservice, short-term, long-term and/or part-time training. They may be carried out at any academic level; however, support is not available for regular undergraduate training programs, those that are directed to the baccalaureate degree and not clearly designed for a special clientele".

Examples of project areas that may be funded under Part D follow:

- Installation of a program for jointly training teachers and teacher aides
- Projects to train teacher aides and other nonprofessional educational personnel

- Projects to prepare artists, craftsmen, scientists, artisans, or persons from other professions or vocations, or homemakers to teach or otherwise assist in programs or projects of education on a long-term, short-term, or part-time basis

- Projects to prepare the staff of schools for the assumption of new roles as a part of restructuring those schools to make them more attractive in terms of employment to able persons (for example, restructuring under the "Executive Teacher" plan).

Concerning projects proposed by Local educational agencies, the Guidelines state that they:

> ". . . will be reviewed with particular attention to the magnitude of the needs addressed, the potential generalizability of the projects, the combinations of resources arranged, particularly with colleges and universities and other local educational agencies with similar needs, and arrangements for consultative assistance. Also important will be evidence that the State educational agencies have consulted with the local educational agencies in the development of the projects and that the needs being addressed are consistent with State-wide evaluations that may have been conducted under the auspices of that agency, and that the State agency concurs in statements of need made in project applications. The State educational agency certification in the project proposal of coordination with the State grant program under Part B-2 of the Education Professions Development Act should, whenever possible, be a part of the application". [emphasis added].

Selected information on Ohio's State grant program under Part B-2 is provided below.

Part B-2 (EPDA). Ohio's recently developed "State Plan for Attracting and Qualifying Teachers to Meet Critical Teacher Shortages" provides that not more than one-third of the sums expended under this Plan will be allocated to Local education agencies to support programs for obtaining the services of and training teacher aides. That nearly one-third of the sums expended under the State Plan should be made available for teacher aide programs is highly significant – even though it is stated in the "negative" above.

Two specific objectives of the State Plan are especially relevant to the present study:

- To encourage local education agencies and institutions of higher learning to develop cooperatively innovative recruitment, training and placement programs for prospective teachers and auxiliary personnel.

- To explore ways to restructure school staffs including the use of aides and auxiliary personnel to make teaching more effective, attractive and more retentive of able personnel.

Regarding programs to obtain and train teacher aides, the State Plan further states:

> "The nature and scope of activities in which the teacher aide will participate may be many and quite varied. It may be presumed that aides may find themselves in all activities of the school and classroom with the exception of teaching itself. The State agency, in entertaining program proposals from local education agencies, must necessarily consider the uses for which the aides are proposed in a given Program as well as the methods and instruction which are proposed for so preparing aides. The goal, of course, is to free the professional, the teacher, for the more important business of teaching. A second goal is for the aide to perform well the tasks for which he was prepared. A third goal is to interest those who successfully serve as aides to continue their education with the possible end in view of becoming certificated teachers, themselves, though this is not a precondition". [emphasis added].

## Federal Financial Resources: Non-State Administered Programs

### The Economic Opportunity Act

Community Action Program. Office of Economic Opportunity (OEO) funding of the training and/or utilization of auxiliary personnel under this program may be summarized as follows:

> ". . . the Office of Economic Opportunity, through the Community Action Program, can finance local programs to train low-income nonprofessionals to work in schools . . . when the need and demand for their employment in the community has been ascertained. OEO cannot provide financial support for the employment of aides in a regular classroom program. It can, however, finance the employment of low-income nonprofessional aides used in special remedial or other, noncurricular educational programs operating under a Community Action Program grant, such as a remedial reading program, or an after-school study center, or Head Start or other preschool program".*

The Neighborhood Youth Corps. The In-School Program of the Neighborhood Youth Corps is designed to help young people, aged 14 through 21, stay in school. By providing part-time work coupled with counseling and, when necessary, the related remedial education, the program makes it possible for youths from low-income families to remain in school. They may stay in the program until graduation from high school. Examples of relevant jobs from Neighborhood Youth Corps projects include: (1) office aides, (2) library aides, (3) playground aides, and (4) education aides.

*Office of Economic Opportunity, Community Action: The Nonprofessional in the Educational System, July 1966.

Head Start. Head Start is a child-development program which offers the economically disadvantaged preschool child learning experiences, medical and dental examinations, and, in some cases, treatment and proper nutrition. Head Start is now carried out as a full-year program for preschool children beginning at age 3, and as an 8-week summer program for children who will enter school for the first time in the fall.

Follow Through. Follow Through is a Federal-assistance program designed to carry the benefits of Head Start into the regular school system. Programs utilize instructional specialists and new teaching techniques, teacher aides, psychologists, social workers, doctors, dentists, and many others to meet the physical, mental, social, and instructional needs of these children. State educational agencies and OEO State technical assistance agencies were asked to nominate Ohio school districts to participate in Follow Through during the 1968-69 school year.

New Careers Program. The major objective of this program is to contribute to and facilitate the process of designing and creating new career jobs in public service. The program opens up career lines by setting up realistic entry-level requirements and by making possible structured advancement to better paying and more responsible jobs. Education is included as an eligible field for training. The program is designed to meet critical local shortages, both current and projected, of professional personnel in such essential fields as health, education, and public safety.

Operation Mainstream. The purpose of this program is to provide meaningful work experience and training to unemployed poor adults in activities that will improve the social and physical environment of the community. Operation Mainstream projects concentrate on activities that improve both rural areas and towns or low-income areas. Projects may include educational services for the poor.

## ALTERNATIVE UTILIZATION SOLUTIONS

In this section, several models for differentiating staff roles are presented and classified either as models for "teaching staff" differentiation or as models for "total staff" differentiation. Some of the models provide various levels for both professionals and auxiliaries; others provide one professional staff position and deal with differentiation among auxiliaries; and, still others include an auxiliary level position, but emphasize differentiation only among professional staff. In this section, we also present a research approach to the assignment of hospital nursing staff and discuss some of the possible implications of such an approach for Ohio school districts and schools.

### "Teaching Staff" Differentiation Models

During this study, six models for differentiating levels of staff were identified as possible alternative solutions to the needs of Ohio school districts to use auxiliary

personnel. Three of the six models were classified as "teaching staff" differentiation models. Summary information on selected features of the "teaching staff" differentiation models is presented in Tables 2, 3, and 4. These models are also discussed briefly in the following paragraphs.

### The "Executive Teacher" Plan

Ohio's Superintendent of Public Instruction, Martin Essex, first introduced the concept of the "Executive Teacher" plan nearly two years ago. While serving as Assistant Superintendent of Public Instruction, Dr. Wayne Carle also discussed the "Executive Teacher" Plan in an article for the Ohio Parent-Teacher. A basic notion of this plan is that teachers would receive varied pay and status commensurate with varied levels of responsibility. Information on proposed levels of staff, illustrative functions, possible educational preparation, and salary ratios is summarized in Table 2. The "Executive Teacher" Plan includes positions for "aide-technician" personnel (to perform nonteaching tasks) and "clerical aide" personnel (to perform clerical tasks) within the instructional team.

### A Proposed Massachusetts Staffing Formula

The Massachusetts Advisory Council on Education recently recommended a new differentiated staffing formula for Massachusetts elementary and secondary schools, and for Special Opportunity Schools in the state. Available information has been summarized in Table 3. This model provides for the use of paraprofessionals to perform nonprofessional tasks within the instructional team.

### The Temple City Model

Temple City Teachers have modified a model of differentiated staffing that was presented in April of 1966 to the California State Board of Education. The essentials of their revised model are summarized in Table 4. In differentiating among the "teaching staff", the model provides for the use of "educational technicians" to perform mainly clerical and housekeeping tasks. In the Temple City Model, "The technician has little, if any, instructional responsibilities" within the instructional team.

## "Total Staff" Differentiation Models

Of the six models for differentiating levels of staff that were identified as possible solutions to Ohio school district needs to use auxiliary personnel, three were classified as "total staff" differentiation models. Pertinent information on selected features of these models is provided in Tables 5, 6, and 7. These models are also discussed briefly in the following paragraphs.

TABLE 2. SUMMARY OF SELECTED FEATURES OF "TEACHING STAFF" DIFFERENTIATION MODELS: THE "EXECUTIVE TEACHER" PLAN

| Levels of Staff | Illustrative Functions | Possible Educational Preparation | Salary Ratios |
|---|---|---|---|
| Executive Teacher | Directs Team Effort, Plans Instructional Units, Measures Pupils Needs, Prepares Materials, Schedules Equipment, Deals with Home, Directs Specialists, Schedules Services, Associates with Research, 5 Teaching Periods Weekly | M. A. Plus | 1.25 |
| Professional Teacher | 20 Teaching Periods Weekly | M. A. | 1.00 |
| Provisional Teachers (2) | 20 Teaching Periods Weekly | B. A. | .85<br>.85 |
| Teaching Intern | 15 Teaching Periods Weekly | 3 Years<br>4 Years<br>M. A. T. | .40 |
| Aide-Technicial | Nonteaching Tasks | H. S. Graduate | .35 |
| Clerical Aide | Clerical Tasks | H. S. Graduate | .30 |
| | | | 5.00 |

Comment: Five-pupil units would be served by the Instructional team.

TABLE 3. SUMMARY OF SELECTED FEATURES OF "TEACHING STAFF" DIFFERENTIATION MODELS: A PROPOSED MASSACHUSETTS STAFFING FORMULA

| Levels of Staff | Illustrative Functions | Possible Educational Preparation | Salary Data |
|---|---|---|---|
| Educational Specialists (15) | Professional Planning and Decisions (High Level Classroom Teachers and Professionals from Cognate Fields) | -- | -- |
| Professional Teachers (15) | Professional Planning and Decisions | -- | -- |
| Associate Teachers (20) | Some Responsibilities for Professional Planning and Decisions | -- | -- |
| Interns or Paraprofessionals (25) | Interns will rotate through the full range of teaching responsibilities. Para-professionals will perform non-professional tasks within the instructional team. | -- | -- |

Comment: The number of personnel of each type are based on estimates for service to 1000 students in elementary and secondary schools (total = 75). Special opportunity schools would receive greater numbers of personnel (Total = 120). However, the same types of personnel are proposed for both.

TABLE 4. SUMMARY OF SELECTED FEATURES OF "TEACHING STAFF" DIFFERENTIATION MODELS: THE TEMPLE CITY MODEL

| Levels of Staff | Illustrative Functions | Possible Educational Preparation | Salary Data |
|---|---|---|---|
| Teaching Research Associate | 3/5's Staff Teaching Responsibilities | Doctorate or Equivalent | $16,000 to 20,000 for 12 Months |
| Teaching Curriculum Associate | 3/5's-4/5's Staff Teaching Responsibilities | M.S., M.A., or Equivalent | $14,000 to 16,000 for 11 Months |
| Senior Teacher | 4/5's Staff Teaching Responsibilities | M.S., M.A., or Equivalent | $11,000 to 14,000 for 10 to 11 Months |
| Staff Teacher | 100 Percent Teaching Responsibilities | B.A. Degree Plus 1 Year | $ 6,000 to 11,000 for 10 Months |
| Academic Assistant | Some Teaching Responsibilities ("skilled paraprofessional or teacher intern") | A.A. or B.A. Degree | $ 4,000 to 5,000 for 10 Months |
| Educational Technicians | Performs Clerical and Housekeeping Tasks and "has little, if any, instructional responsibilities" | -- | -- |

TABLE 5. SUMMARY OF SELECTED FEATURES OF "TOTAL STAFF" DIFFERENTIATION MODELS: THE NASSP COMMISSION MODEL

| Levels of Staff | Illustrative Functions | Possible Educational Preparation | Salary |
|---|---|---|---|
| Professional | Plan Methods and Materials of Instruction; Teach Concepts, Idea, and Appreciations to Large Student Groups; Direct General Learning Activities of Students; Some May Be Specialists in Educational Technology. | Minimum of M. A. Degree | Considerably in Excess of $10,000 |
| Para-professional Assistants | Function at level between Professional Teachers and Clerks; Reading Themes and Compositions; Serve as Laboratory Assistants; Driver Education Instructor; Supervision | Mostly College Graduates Selected To Perform Specific Aspects of Teaching Job | -- |
| Clerk | Routine tasks and clerical functions | High School Graduates with nominal secretarial skills | -- |
| General Aide | Controlling and Supervising Students | High School Education; Preferably with work beyond high school | |
| Community Consultants | Used to Supplement Staff Services in Areas of Expertise; Make Special Presentations | -- | Mostly Volunteer Services |
| Staff Specialists | Mostly Professional Work Related to Guidance, Health, Research, and Other Specialized Staff Services | Professional Training | -- |

Comment: This model was advanced for secondary schools.

## The NASSP Commission Model

In 1958, as Director of the National Association of Secondary School Principals' Commission on the Experimental Study of Utilization of the Staff in the Secondary School, J. Lloyd Trump proposed six kinds of staff for secondary schools "of the future". Selected features of this NASSP Commission Model have been summarized in Table 5. Of particular interest to us here are the three levels of staff which were designated "paraprofessional assistants", "clerks", and "general aides". The paraprofessional assistants were to function at a level beneath the teacher, but above the clerks. Typical functions would have involved reading themes, serving as a laboratory assistant and others as indicated in Table 5. Clerks, in turn, were to have performed routine tasks and clerical functions while the general aides would have been involved in controlling and supervising pupils.

## The "Institutional Model for Paraprofessional Interaction"

This model was proposed recently as "a universal teacher aide organization chart" in an article "How to pigeonhole teacher aides for better performance and production". Four classes of auxiliaries are identified by the model . . . . as summarized in Table 6. An "instructional aide" provides instructional assistance under the supervision of teachers. A "technical aide" provides noninstructional technical assistance, including equipment operation and maintenance. A "general aide" renders noninstructional classroom assistance and a "monitor" provides behavioral supervision under the model.

TABLE 6. SUMMARY OF SELECTED FEATURES OF "TOTAL STAFF" DIFFERENTIATION MODELS: THE "INSTITUTIONAL MODEL FOR PARAPROFESSIONAL INTERACTION"

| Levels of Staff | Illustrative Functions | Possible Educational Preparation | Compensation |
|---|---|---|---|
| Instructional Aide | Instructional Assistance; Supervised by Teacher | Two Years or More of College | Optimal Benefits |
| Technical Aide | Noninstructional Technical Assistance; Equipment Operation and Maintenance; Supervised by Administrator and/or Teacher | Specialized Training | Increased Benefits |
| General Aide | Noninstructional Classroom Assistance | High School Graduate | Increased Benefits |
| Monitor | Behavioral Supervision; Supervised by Administrator | Socioemotional Maturity | Basic Benefits |

## Possible Stages in Career Development of Auxiliaries

This idea provides greater differentiation of staff and comprehensiveness of coverage of auxiliary personnel than any of the others considered in this report. It also makes explicit provisions for career development within auxiliary ranks whereas the other models fail to do so. Table 7 was reproduced from "New Partners in the American School: A Study of Auxiliary Personnel in Education".*

## Staff Assignment Models

This section of the report is concerned with the question of how schools and school districts can make more effective and efficient use of available staff, including professionals and auxiliaries. An approach to the assignment of hospital nursing staff is described and some of the possible implications of such an approach are discussed in relation to Ohio's school districts and schools.

The following approach to staff assignment in a hospital setting was described in New Look in Education: Systems analysis in our schools and colleges.

> "One of the early phases of . . . (the Johns Hopkins research) program was connected with the shortage of nurses and the most efficient use of available personnel. The work, started with an examination of current policies, and a significant redefinition of objectives. Instead of trying to maintain a full nursing staff in all wards at all times, whether or not the wards were full, it was decided to adjust the staff to daily patient loads. This led to an intensive analysis which could easily be the subject of a book in itself. It meant a study of all the duties of head nurses, licensed practical nurses, nursing aides, and ward clerks (in order of decreasing salary) – what they actually did as well as what they were best qualified to do. The two were not always the same and highly trained persons were often spending a disproportionate amount of time doing what less skilled persons could have done at least as well."

> "Patients were also observed closely and divided into three categories depending on the amount and type of care they required: self-care, partial or intermediate care, intensive or total care. To obtain this information nurses kept detailed records of 96 patients for 4 days, 24 hours a day. Then assignment models were set up, on the basis of matrices which involved a row consisting of the six nursing-staff positions, a column of 15 or more duties, and the costs of using various types of personnel to perform each of the duties."**

Staff assignment research has numerous implications for the effective and efficient utilization of personnel in Ohio schools and school districts. Although solutions to the hospital problem cited above led mainly to increased efficiency in staff utilization, the approach is also applicable to problems where the objective is to make the most effective assignment of available staff members. In essence, one needs to substitute measures of effectiveness for the costs of having different types of staff members perform various duties.

*"New Partners in the American School: A Study of Auxiliary Personnel in Education", Bank Street College of Education for the Office of Economic Opportunity (November 1967).

**Pfeiffer, John, New Look at Education, Systems Analysis in Our Schools and Colleges, The Odyssey Press, New York City (1968) 162 pp.

TABLE 7. SUMMARY OF SELECTED FEATURES OF "TOTAL STAFF" DIFFERENTIATION MODELS: "POSSIBLE STAGES IN CAREER DEVELOPMENT OF AUXILIARIES"

## possible stages in career development of auxiliaries

| | Illustrative Functions | Training Suggested |
|---|---|---|
| **1) AIDE** SUCH AS: | | |
| GENERAL SCHOOL AIDE | Clerical, monitorial, custodial duties | Brief orientation period (2 or 3 weeks) in human development, social relations, and the school's goals and procedures, as well as some basic skill training. |
| LUNCHROOM AIDE | Serving and preparation of food, monitorial duties | |
| TEACHER AIDE | Helping teacher in classroom, as needed | |
| FAMILY WORKER OR AIDE | Appointments, escorting, and related duties | |
| COUNSELOR AIDE | Clerical, receptionist, and related duties | no specified preschooling required. |
| LIBRARY AIDE | Helping with cataloging and distribution of books | |
| **2) ASSISTANT** SUCH AS: | **Illustrative Functions** | **Training Suggested** |
| TEACHER ASSISTANT | More relationship to instructional process | High school diploma or equivalent; one year's inservice training or one year in college with practicum |
| FAMILY ASSISTANT | Home visits and organizing parent meetings | |
| COUNSELOR ASSISTANT | More work with records, listening to children sent from class to counselor's office because they are disrupting class | both can be on a work-study basis while working as an aide |
| LIBRARY ASSISTANT | More work with pupils in selecting books and reading to them | |
| **3) ASSOCIATE** SUCH AS: | **Illustrative Functions** | **Training Suggested** |
| TEACHER ASSOCIATE | More responsibility with less supervision by the professional | A.A. degree from two-year college or two-year special program in a four-year college. |
| HOME-SCHOOL ASSOCIATE | | |
| COUNSELOR ASSOCIATE | | both can be on work-study basis while working as an assistant |
| LIBRARY ASSOCIATE | | |
| SOCIAL WORK ASSOCIATE | | |
| **4) TEACHER - INTERN** SUCH AS: | **Illustrative Functions** | **Training Suggested** |
| STUDENT TEACHER | Duties very similar to those of associate but with more involvement in diagnosis and planning | B.A. or B.S. degree and enrollment in a college of teacher education or other institution which offers a program leading to certification |
| STUDENT HOME-SCHOOL COORDINATOR | | |
| STUDENT COUNSELOR | | |
| **5) TEACHER** | | |

What are the basic assumptions and implications of this type of approach?

First, it assumes that staff members differ reliably in terms of ability to perform various duties and/or the costs associated with having them perform various duties.

Second, this type of approach assumes that one can be precise about the kinds of staff-student interactions one wants to achieve. For example, in one school an educational goal might be to provide all students with 15 minutes of "individualized" instruction each week. In another school, one group of students might require 60 minutes of individualized instruction per week, whereas another larger group might require only 5 minutes each week.

A third assumption of this approach (in the present context) is that Ohio schools and school districts differ considerably in their goals and objectives, the qualifications of their staff members, the size of their staffs, and their needs for different types and levels of personnel.

## ALTERNATIVE TRAINING SOLUTIONS

In this section several alternative training solutions are presented within the context of the present State education system. The solutions considered include high school/vocational education programs, post-high school programs, and specialized course offerings.

### High School/Vocational Education Programs

One approach to Ohio's needs for pre-employment training of auxiliary personnel would be to develop vocational education programs at the high school level. According to our survey data, such programs would be responsive to the desires of many school districts, for there was considerable interest in applicants with a high school diploma or the equivalent from a program designed to train students for auxiliary positions. Such programs might also be eligible for Vocational Work-Study projects which would provide for placing students in jobs (part-time) where their vocational competencies and interests can best be served.

The report of Denham and his colleagues on "High School Training for New Careers in Human Services" warns, however, that:

> "The projected linking of local high school systems to the human services occupational systems and to post high school educational complexes on behalf of disadvantaged students . . . adds up to a problem of social planning that is immensely challenging."

## Post-High School Programs

Another approach to Ohio's needs for trained auxiliaries would be to offer post-high school training programs in technical institutes, community colleges, etc.

In Ohio, the Cuyahoga Community College offers an Associate Degree program for Library Technicians. In addition, several other 2-year post-high school programs are being developed to meet a variety of needs for "educational technicians". ODE has played an instrumental role in stimulating interest in these programs, and in convening curriculum development committees. Although only the program to train primary technicians (Grades K-3) has been granted Associate Degree status as of this writing, several other proposed programs have been prepared for Ohio Board of Regents review and approval. Current plans include the eventual development of seven programs for associate degree training of educational technicians. Beside the primary technicians, programs are planned to train:

- Pupil personnel technicians
- Library technicians
- Audio-visual technicians
- Physical education technicians
- Science Laboratory technicians
- Elementary technicians (grades 1-6).

In general, our preliminary assessment of needs supports the above choice of the types of "educational technicians" to be trained. However, when it comes to specifying the level(s) of training needed most, our results are less clear. In fact, they indicate that other lesser levels of training may be more desirable to many Ohio school districts (for most types of auxiliaries).

## Specialized Courses

A third approach to Ohio's need for trained auxiliaries lies in the design of specialized courses for different types and levels of auxiliary positions. EPDA grants appear well-suited to such an approach. Further, our sample of school districts showed considerable interest in applicants with a high school diploma plus a short (6 to 12 week) course as pre-employment background for an auxiliary position with their districts (3 years from now). Perhaps, specialized adult education programs could also be developed for training the unemployed and underemployed to serve as auxiliaries. The Work Experience and Training Program authorized by the Economic Opportunity Act of 1964 could probably be used to support specific project efforts.

One example of a specialized course would be the 8-week "Teachers' Aide Course" offered by the Erie-Huron-Ottawa Vocational Education School District. The course

outline provides for coverage of the following major topics: (1) the use of auxiliary personnel, (2) child development, (3) elementary curriculum - overview, (4) services such as child care, first aid, etc., (5) skills to be developed such as handwriting, operation of A-V equipment, etc., and (6) ethics. In addition, students are assigned to schools 5 half days a week for a period of 4 weeks to provide school laboratory experience under Cooperating Teachers.

The development of inservice training courses for auxiliaries and professional staff would also be tremendously significant if college level credit could be established for job-centered knowledge and skill development.

## AN INTEGRATED TRAINING AND UTILIZATION SOLUTION

A brief description of an integrated training and utilization solution is offered in this section. The "New Careers" concept is the cornerstone for this integrated training and utilization model. *

### The "New Careers" Concept

According to Pearl and Riessman:

> "The new career concept has as a point of departure the creation of jobs normally allotted to highly-trained professionals or technicians, but which could be performed by the unskilled, inexperienced, and relatively untrained worker; or, the development of activities not currently performed by anyone, but for which there is a readily acknowledged need and which can also be satisfactorily accomplished by the unskilled worker."

In discussing education as a model for new careers, these authors make the claim that:

> "What is needed is redefinition of the teaching role. The teacher encompasses too many activities, and it is proposed here that five different functions can be abstracted from the one omnifarious duty now performed. These roles are (1) a teacher aide, (2) a teacher assistant, (3) a teacher associate, (4) a teacher, and (5) a supervising teacher. These five teaching roles would exist along a continuum in which advancement from entry position to full-fledged professional could be negotiable on the basis of talent and motivation . . ."

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*Pearl, Arthur, and Riessman, Frank, New Careers For The Poor, The Nonprofessional in Human Service, The Free Press, New York (1965) 273 pp.

# IMPLICATIONS OF STUDY FINDINGS FOR OHIO

## Discussion

This report provides a conceptual framework for examining the needs, resources, and alternative solutions to needs for the use and training of auxiliary personnel in Ohio's public schools. In this framework the State educational system is viewed as a manpower system. Accordingly, our description of the system under study offers a manpower utilization perspective, a manpower training perspective, and a social systems view. The significance of this systems approach for Ohio is that it points to the need for integrated, comprehensive manpower planning within the State educational system. In addition, it suggests the types of links that could be developed between system elements on both the supply and demand side of the "manpower" equation. Another "spinoff" of the approach is that it focuses attention on the dynamic interpersonal dimensions of introducing auxiliary personnel into the social systems and subsystems that we call "school districts" and "schools". Finally, it facilitates conceptualization of the impact of outside forces of change and development as they relate to manpower training and utilization requirements within the State educational system. An example would be the impact of federal legislation or an international event such as "Sputnik" on manpower training and utilization practices in Ohio public schools.

## Financial Resources

The availability of financial resources to support the use and/or training of auxiliary personnel has increased dramatically during the past 5 years. Major legislative milestones include the Economic Opportunity Act of 1964, the Elementary and Secondary Education Act of 1965, Ohio Senate Bill 350 (1967), and the Education Professions Development Act of 1967.

Collectively, these sources of funds have had and will continue to have a pronounced impact on educational manpower planning, recruitment, selection, training, assignment, utilization, and evaluation within the State education system. However, their present and future impact on the use and training of auxiliaries is difficult, if not impossible, to estimate precisely because the dollar amounts expended or allocated for these purposes are not generally available in an itemized form. A further complicating factor involves the extent and type of auxiliary training to be offered by our State educational institutions. For example, the introduction of auxiliary training into vocational education and technical education programs would make additional sources of funds available to support auxiliary training. The extent to which "hard" funds will be allocated by local school boards to use and train auxiliaries is also largely unknown at this time. The net result is that no definitive determination can be made now regarding the adequacy of available financial resources for meeting present and future needs for the training and use of auxiliaries in Ohio schools.

## Legal Status

The present legal status of auxiliaries appears to have significant implications for Ohio when we consider the results of our preliminary assessment of needs for auxiliaries and review alternative utilization plans. Available evidence suggests that, in the absence of statutes to the contrary, auxiliaries are:

. . . not authorized to perform instructional duties or to teach

. . . probably without authority to regulate pupil conduct

. . . potentially liable for pupil injury when performing supervisory tasks unless qualified to do so.

The legal dimension appears even more important when we consider the types of auxiliaries that Ohio school districts expect to have the greatest need for 3 years from now (in descending order):

- Teachers' Assistants (for regular classrooms)
- Clerical Assistants (for regular classrooms)
- Library Assistants
- Remedial Reading Assistants (for regular classrooms)
- Lay Reader Assistants (for regular classrooms)
- Clerical Assistants (for administrative offices)
- Physical Education-Recreation Assistants

Clearly, only the clerical assistants (of those listed above) would be unlikely to engage in some form of student contact that could be construed as instructional duties, activities requiring regulation of pupil conduct, or supervisory tasks which could result in potential liability for student injury. In reviewing the above list of needed auxiliary personnel, it also becomes fairly apparent why other states, such as New Jersey and California, would distinguish clearly between clerical personnel and other auxiliary educational personnel. Such a distinction has appeared often in staff differentiation models as well. All of these considerations need to be evaluated and resolved if our objective is to meet the needs of Ohio school districts for different types of auxiliary personnel without freezing patterns of use prematurely or in ways that obstruct the attempts of local districts to meet their unique needs. Further, it should be recognized that available research evidence does not provide a sound technical basis for precise differentiation of roles in terms of work actually performed.

## Professional Associations

The official positions of professional associations on the use and training of auxiliaries are also viewed as significant in relation to Ohio's need for auxiliaries and the alternative utilization plans reviewed previously. In essence, professional associations

are expected to be receptive to the use and training of auxiliary personnel so long as certain basic constraints are satisfied (i.e., the pupil-teacher ratio is not increased, auxiliaries are placed under the direction of appropriate professional personnel, auxiliaries are qualified for their assignments, etc.). For example, the interest of the American Library Association has been especially visible recently through its efforts to develop guidelines for training auxiliary library personnel.

## Pre-Employment Training

Our study findings also indicate that Ohio school districts would like their future applicants for auxiliary positions (in 1971-1972) to have pre-employment training for their positions and/or post-high school education – the amount and combination depending on the type of auxiliary position involved. If such training is to avoid the problems of relevance which confront traditional programs of preparation in education, the ultimate users of the training graduates should be involved in the design, implementation, and evaluation of the training programs. Furthermore, and most importantly, training "machinery" needs to be developed to provide pre-service and in-service team training for auxiliaries and their professional counterparts to avoid gross over- and under-utilization of the auxiliaries by the professionals. This team training should aim to develop role understandings that encourage both the auxiliaries and the professionals to work together to provide maximum benefits to the student. Basic role relationships should also be defined in terms of the professionals' authority and ultimate responsibility for student progress and development. Nonteam members will also require preparation for imminent role changes because:

> ". . . the introduction of auxiliaries into the school requires a reassessment of all roles, with emphasis upon the common goal rather than upon the personal gratification team members derive from doing their own part of the job".

The legal status of auxiliaries should be established as a preliminary or concurrent step in the development of alternative pre-employment training plans. Hopefully, the numerous utilization and training "elements" in our State educational system can mobilize the resources and achieve the cooperation necessary to design and implement an integrated program of utilization and training for auxiliaries and professional staff alike. Such a program should be founded on the premise that the mere presence of auxiliary personnel is not a panacea for educational ills.

# Conclusions

Based on our study findings, several conclusions have been reached about the use and training of auxiliary personnel in Ohio's educational system. Our major conclusions appear below:

## General Conclusion

When auxiliaries are properly trained and utilized, they can make significant contributions to the total educational program. More specifically, appropriate use of

adequately trained auxiliaries can lead to direct benefits for students and professionals. Further, when low-income parents from the neighborhood school area are employed as auxiliaries, substantial indirect (often unanticipated) benefits can result for the school, the parents, the community, and society-at-large.

## The Classification of Auxiliaries in the Present Report

The classification of auxiliaries used in the present report is quite compatible with existing patterns of staff organization in Ohio schools and school districts. Furthermore, only one major type of auxiliary was added by the Ohio school districts that responded to our survey questionnaire (i.e., preschool assistants). Therefore, it appears that our classification system could serve as a starting point for auxiliary manpower planning efforts. The listings of assistants within each "type of auxiliary" are groupings based on present patterns of usage. They can probably be refined further, especially within a category.

## Need for Information at the Local Level About Non-State Administered Federal Programs

Because the "bulk" of funding for training and utilization of auxiliaries presently originates at the State and Federal levels, and because patterns of funding are emerging swiftly and changing rapidly, there is a need at the local level for information about sources of funding. It appears that ODE would be providing a much needed service if it could make information about non-State administered federal programs more available to interested local school districts.

## Use of Auxiliaries

The State educational system will require many different types and levels of auxiliary personnel if it is to meet the needs of individual school districts. Individual districts can be expected to differ considerably from each other in terms of the types and levels of auxiliaries best-suited to their respective needs. Therefore, decisions about desired levels and types of utilization should remain primarily a school district function. This means that it will be necessary for individual school districts to assume responsibility for seeing that auxiliaries are qualified to perform the tasks they are assigned.

## Training of Auxiliaries

In response to the needs of local districts for different types and levels of auxiliary personnel, our State educational institutions need to provide "multiple ports of entry" through development of appropriate types and levels of pre-employment education and training. In addition, however, it is critical that pre-service and in-service training not be neglected by local school districts. (In fact, when entry-level positions are

involved, the responsibility for training will rest primarily with individual school districts.) Because auxiliaries are being introduced into a "social system", there is a fundamental need for preparing both the auxiliaries and the professionals to work together effectively. Furthermore, it appears that other school and district personnel will require some preparation if they are to anticipate eventual changes in their own roles in the system. For this reason, certified school personnel should be involved in the design, implementation, and evaluation of those pre-service and in-service auxiliary training programs that will ultimately affect them.

## Integrated Utilization and Training

A major long-term objective of the State educational system should be to design and implement an integrated program of utilization and training for auxiliaries and professional staff. Such a program would need to be consistent with the staff development needs of local school districts. It is hoped that opportunities for interaction among ODE, local school systems, and institutions of higher learning under the Education Professions Development Act will lead toward such an integrated program of training and utilization.

## Certification

It is Battelle's conclusion that, at this time, certification of auxiliary personnel would generally be inappropriate, premature, and restrictive in its effects upon the use of auxiliary personnel in Ohio elementary and secondary schools. However, there does appear to be a need for ODE guidelines on the use and training of all types of auxiliary personnel. There also appears to be a need for legislation to authorize the use of qualified auxiliaries in supportive roles in Ohio's educational system, including authorization of their performance of instructional and supervisory duties under the direction and supervision of certified, professional school personnel. Under such legislation, professional personnel clearly must retain responsibility and accountability for student progress. Permission to administer corporal punishment should be explicitly withheld from any authorization of auxiliaries to regulate pupil behavior.

A distinction needs to be made between clerks and auxiliary educational personnel. Clerks should be excluded from the class of persons defined as auxiliaries and from future considerations involving certification and/or licensing. It is also our view that ODE should establish administrative machinery similar to that developed in New Jersey and proposed in California, including: (1) the collection of task descriptions and statements of personnel qualifications for each type of auxiliary position created by local school districts, (2) the review and approval of the auxiliary positions, and (3) the issuance of permits to the individual persons who are employed by local districts in the various auxiliary positions. In our view, this system would not impose levels or patterns of usage on local districts, and yet, it would provide basic information for use in establishing a proper balance between levels of training and levels of utilization throughout the State.

## Recommendations for Future Work

There is a need for integrated, comprehensive manpower planning and development within the State educational system. Manpower training and utilization research on a statewide basis is, therefore, recommended in the following problem areas:

(1) Development of a task analysis methodology for use in identifying and measuring tasks and services that could be performed by various types and levels of auxiliary personnel. The methodology would need to blend a "developmental" approach and a "reductionistic" approach. The former approach would proceed from student needs and those of professional personnel to inferences about the types of tasks and services required to meet the needs. In this way, new tasks and services could be identified in addition to existing ones. In contrast, the latter approach would proceed by analysis of existing jobs into "clusters" of tasks and services that could be reallocated to auxiliary personnel.

(2) The task analysis methodology should be applied to all types and levels of educational personnel to permit development of a statewide occupational classification system. The "reductionistic" approach could be used to classify existing jobs in terms of work actually performed, and thereby lead to a statewide occupational structure. The "developmental" and "reductionistic" approaches could then be combined in order to specify education and training requirements for positions of different types and levels. The combined approach also could be used to identify "new careers" in education, and thus, to facilitate career planning for personnel of all types.

There also is a need for evaluation and further development of alternative solutions to the needs of Ohio public schools for trained auxiliary personnel. Future work should be directed primarily toward evaluation of training and utilization solutions. Emphasis in the following areas is recommended:

(1) Staff utilization research should be encouraged and supported to promote more effective and efficient utilization of staff at the grade, building, and district levels of operation. Gradual expansion of scope from the grade to the district level might be accompanied by progression from (a) evaluation of "teaching staff" differentiation models, to (b) evaluation of "total staff" differentiation models, and finally, to (c) evaluation of staff assignment research models in collaboration with trained research personnel.

(2) The feasibility and desirability of providing high school vocational education programs to prepare auxiliaries for service in Ohio's public schools should be thoroughly evaluated. Also, the need for specialized pre-service and in-service courses should be assessed more closely. Finally, the role of post-high school educational institutions should be carefully

scrutinized. Ohio's proposed technical training programs (2-year post-high school) represent a forward-looking approach to auxiliary training. The possibilities for expanding auxiliary training opportunities at other higher education institutions should also be actively explored and assessed.

# • AUXILIARY PERSONNEL
# DATA PROCESSING
# EDUCATIONAL TECHNOLOGY
# SCHOOL FACILITIES
# LIBRARY MANPOWER
# PUPIL TRANSPORTATION
# VOCATIONAL AND TECHNICAL EDUCATION—PART I
# SUMMARY REPORT—PHASE I

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